## AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

## LISTING OF CLAIMS:

Claims 1 to 18. (Canceled).

19. (Previously Presented) A method for generating a personal identification number (PIN) having a number of N decimal digits, to be used for money cards and other security-requiring devices, comprising:

generating the personal identification number from a binary number having L digits so that the personal identification number is randomly distributed over an available number domain;

converting a first predefinable natural number n1 of digits of the binary number into a first decimal number d1;

wherein:

the first predefinable natural number n1 of digits is selected so as to yield a first natural number z1 such that a quotient $2^{n1}/(z1*9)$ is close to 1;

a first decimal digit of the personal identification number receives a value first decimal number d1 modulo 9; and

N-1 further groups of a second predefinable number n2 of digits of the binary number are converted each time into N-1 decimal numbers second decimal number d2 through Nth decimal number dN, the second predefinable number n2 being selected so as to yield a second natural number z2 such that a quotient $2^{n2}/(z2*10)$ is close to 1, to satisfy a condition of $0<=2^{n2}$ modulo 10<3, and decimal digits 2 through N of the personal identification number receive values di modulo 10, i=2 through N.

20. (Previously Presented) The method of claim 19, wherein the first predefinable natural number n1 and the second predefinable number n2<=16 are predefined.

21. (Canceled).

22. (Previously Presented) The method of claim 19, wherein the binary number has a length of L=16, and N=4 and n1=n2=4 are predefined.

23. (Previously Presented) The method of claim 19, wherein the binary number has a length L=3*n3, third natural number n3 groups of three digits of the binary number are converted into third natural number n3 decimal digits to generate third natural number n3 digits of the personal identification number.

24. (Canceled).

25. (Canceled).

26. (Canceled).

27. (Canceled).

28. (Canceled).

29. (Previously Presented) A method for generating a personal identification number (PIN) having a number of N decimal digits, to be used for money cards and other security-requiring devices, comprising:

generating the personal identification number from a binary number having L digits so that the personal identification number is randomly distributed over an available number domain, wherein:

a first digit of the personal identification number is generated by:

generating a pseudo-random number composed of up to 36 hexadecimal digits from a binary number of a length L;

converting each hexadecimal digit of the pseudo-random number using one different one out of 36 possible different mathematical mappings of the 36 hexadecimal digits into digits 1 through 9, into another digit of the digits 1 through 9, forming a generated number;

linking up to 36 decimal digits of a generated number in a mathematical operating to form a decimal digit that is unequal to zero and that represents a first digit of the personal identification number, to average out a probability of a particular personal identification digit occurring; and

a second digit and each following digit of the personal identification number is generated by:

generating another pseudo-random number composed of up to 210 hexadecimal digits from the binary number of length L;

converting each hexadecimal digit of the another pseudo-random number into one decimal digit using each time one different one out of a 210 possible mathematical mappings of hexadecimal digits into decimal digits; and

linking up to 210 decimal digits of a generated number in a
mathematical operation to form a decimal digit representing a particular
digit of the personal identification number, to average out the probability
of the particular personal identification digit occurring.

30. (Previously Presented) The method of claim 29, wherein the first digit of the personal
identification number is generated in that the up to 36 digits are linked using a group
operation of any arbitrary mathematical group of an order 9, and the second digit and each
following digit of the personal identification number are generated in that the up to 210
digits are linked using a group operation of any arbitrary mathematical group of an order 10.

31. (Previously Presented) The method of claim 30, wherein an additive group of integers
modulo 10 are used to link the up to 210 digits.

32. (Previously Presented) The method of claim 30, wherein a multiplicative group of
integers modulo 11 are used to link the up to 210 digits.

33. (Previously Presented) The method of claim 30, wherein a group of symmetric mappings
of at least one of a regular pentagon and a dihedral group is used to link the up to 210 digits,
each ten symmetric mappings of the group of symmetric mappings of the at least one of the
regular pentagon and the dihedral group being assigned a different decimal digit.

34. (Previously Presented) The method of claim 33, wherein a digit 0 is assigned to an
identity mapping, digits 1 through 4 are assigned to four rotations about a midpoint of the at
least one of the regular pentagon and the dihedral group, and digits 5 through 9 are assigned
to five reflections about five axes of symmetry of the at least one of the regular pentagon and
the dihedral group.

35. (Canceled).

36. (Canceled).

37. (Canceled).

38. (Previously Presented) The method of claim 19, wherein N=4 is selected.

39. (Previously Presented) The method of claim 19, wherein the binary number is fully
converted into a decimal number to generate the personal identification number, and if
necessary, a correction value is added to a resultant decimal number so that a first digit of the

4

decimal number becomes unequal to zero, digits of the resultant decimal number forming the decimal digits of the personal identification number.

40. (Previously Presented)  The method of claim 39, wherein the binary number has a length L of 13, the resultant decimal number has four digits, and a preset value greater than 999 and smaller than 1807 is added to the resultant decimal number.

41. (Previously Presented)  The method of claim 40, wherein a set of numbers 0 through 8191 is allocated to natural number n5 subsets Ml, . . . , Mn5, and a preset value di is added to the resultant decimal number if it is an element of a set Mi, where 999<first decimal number d1<second decimal number d2< . . . <third decimal number dn5<1809.

42. (Previously Presented)  The method of claim 39, wherein the binary number has a length L of 16, the resultant decimal number has five digits, and a preset value greater than 9999 and smaller than 34465 is added to the resultant decimal number.

43. (Previously Presented)  The method of claim 42, wherein a set of numbers 0 through 65535 is allocated to natural number n5 subsets Ml, . . . , Mn5, and a preset value di is added to the resultant decimal number if it is an element of a set Mi, where 9999<first decimal number d1<second decimal number d2< . . . <third decimal number dn5<34465.

44. (New)  A method for generating a personal identification number (PIN) having a number of N decimal digits, to be used for money cards and other security-requiring devices, comprising:
    generating the personal identification number from a binary number having L digits so that the personal identification number is randomly distributed over an available number domain,
    wherein the binary number having L digits is generated at least in-part from data pertaining to an individual, and wherein the binary number is fully converted into a decimal number to generate the personal identification number, and if necessary, a correction value is added to a resultant decimal number so that a first digit of the decimal number becomes unequal to zero, digits of the resultant decimal number forming the decimal digits of the personal identification number.

45. (New)  The method of claim 44, wherein the binary number has a length L of 13, the resultant decimal number has four digits, and a preset value greater than 999 and smaller than 1807 is added to the resultant decimal number.

46. (New)  The method of claim 45, wherein a set of numbers 0 through 8191 is allocated to natural number n5 subsets Ml, . . . , Mn5, and a preset value di is added to the resultant

decimal number if it is an element of a set $M_i$, where $999 <$ first decimal number $d_1 <$ second decimal number $d_2 < \ldots <$ third decimal number $d_{n5} < 1809$.

47. (Previously Presented) The method of claim 44, wherein the binary number has a length L of 16, the resultant decimal number has five digits, and a preset value greater than 9999 and smaller than 34465 is added to the resultant decimal number.

48. (Previously Presented) The method of claim 47, wherein a set of numbers 0 through 65535 is allocated to natural number $n5$ subsets $M_1, \ldots, M_{n5}$, and a preset value $d_i$ is added to the resultant decimal number if it is an element of a set $M_i$, where $9999 <$ first decimal number $d_1 <$ second decimal number $d_2 < \ldots <$ third decimal number $d_{n5} < 34465$.